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# Hostile Media Perceptions of Friendly Media Do Reinforce Partisanship

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**Abstract**

The hostile media effect (HME) entails that partisanship incites hostile perceptions of media content. However, other research underscores that partisans selectively turn to like-minded media, resulting in a friendly media phenomenon (FMP). The present study suggests that the HME and FMP co-exist, and, furthermore, jointly affect people's voting behavior. More specifically, based on a media content analysis and a long-term panel survey surrounding the 2014 election for the European Parliament in the Netherlands, we find that people selectively turn to like-minded friendly media (FMP), but perceive coverage about the EU (European Union) in these media as relatively unsupportive of their own position (HME). In this context, the FMP and HME appear to jointly influence voting behavior. People cast votes in line with the objectively partisan-friendly media tone of their self-selected media. However, to a certain extent they do so, because they seem motivated to counteract the seemingly unfair or insufficient coverage about the EU.

**Keywords**

hostile media, media effects, EU elections, content analysis, survey research

Today's media systems offer a greater choice of media than ever before, thereby shaping a political participation gap between news avoiders who seek media primarily for social interaction and entertainment and news seekers with often strong partisan preferences who encounter a sufficient amount of political news to cast a vote

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(Prior, 2013). Such a gap may well occur particularly in less newsworthy "second order" elections like the elections for the European Parliament (de Vries, van der Brug, van Egmond, & van der Eijk, 2011) on which this study focuses. People with strong partisan preferences may opt for selective exposure to like-minded media with a predictable partisan media content, which has been identified as a cause of political polarization in this new era in which autonomous effects of media content become impossible (Bennett & Iyengar, 2008; Stroud, 2010). The tendency to resort to "friendly, politically consonant media" has been addressed as the *friendly media phenomenon* (FMP) by Goldman and Mutz (2011, p. 45). They find that self-selected media tend to lean in the direction of the respondent indeed: "the media environment experienced by most citizens is a friendly one." The literature on the FMP (Goldman & Mutz, 2011) and on related phenomena like media-party parallelism and partisan selective exposure (Arceneaux, Johnson, & Murphy, 2012; Levendusky, 2013; Seymour-Ure, 1974; van Kempen, 2007) entails that particularly partisans selectively choose like-minded media. They may end up in echo chambers and filter bubbles, that confirm and reinforce their opinions (Dilliplane, 2014; Knobloch-Westerwick, 2012; Knobloch-Westerwick, Johnson, & Westerwick, 2015; Stroud, 2010; Westerwick, Johnson, & Knobloch-Westerwick, 2017).

However, another strand of research shows a tendency of partisans to perceive news coverage on controversial issues as being biased against their own view, which has been addressed as the *hostile media effect* (HME; Gunther & Schmitt, 2004; Matthes, 2013; Vallone, Ross, & Lepper, 1985); for reviews see Hansen and Kim (2011) and Perloff (2015). Vallone et al. (1985), who coined the concept of HME, found that both pro-Israeli and pro-Arab partisans disapproved media reports about the 1982 Beirut massacre. For partisans, the truth was either "black"—wholly misaligned with their own views—or "white"—wholly aligned. Therefore, media reports were disapproved as being unfairly biased, although they presented a rather factual view on the massacre without choosing a side. The HME finds support both in experimental studies and in "out-of-lab" natural settings, for example, in large-scale surveys (Eveland & Shah, 2003). Importantly, the HME has been shown to motivate corrective action among partisans (Barnidge & Rojas, 2014; Rojas, 2010), that is, attempts to make up for the presumed damage done by the seemingly unfair media coverage.

Is the HME compatible with the FMP? They seem to be compatible for politicians who use friendly media, including their own social media accounts, to attack hostile media and political adversaries alike. The more subtle question is, however, whether a voter who selected a partisan medium because of its partisan reputation would develop hostile media perceptions nevertheless. One answer to this question is that relatively hostile media perceptions in case of self-selected friendly media are simply "less relevant because a relatively more hostile perception of favoritism on the part of a media source may, in reality, just be a relatively less friendly perception that is nonetheless still supportive of the reader or viewer's political perspective" (Goldman & Mutz, 2011, p. 44). A similar answer is that the FMP will drive out the HME in the long run, because hostile perceptions of neutral and adversary media content will motivate

partisans to choose instead like-minded media that will be perceived as friendly media (see for the latter Feldman, 2011; Gunther, Edgerly, Akin, & Broesch, 2012).

The current study substantiates a third answer to the question whether the FMP and HME are compatible: they co-exist, with the HME strengthening the role of the FMP. To explore this possibility, a longitudinal research design is required to explain both the earlier choice of (friendly?) media, and in a later stage the (hostile?) perceptions of the provided media content. Therefore, the design includes a content analytic measure of the tone of various media and a survey measure of the perceptions thereof.

## Compatibility of the FMP and HME

A general methodological reason why the FMP and HME may co-exist is that in FMP studies, partisan selective exposure is measured on the basis of objective indicators (e.g., the ideological leaning of a newspaper), whereas in most HME studies the measure for the tone of the media—alternatively labeled as their tenor, message tendency, sentiment or slant—is based on subjective perceptions (e.g., perceived media tone). Accordingly, these studies do not exclude that the FMP and the HME may co-exist. Self-selected friendly media might be *objectively* supportive of one's position on the basis of content analysis data (proving the FMP), but nevertheless be *subjectively* perceived by partisan respondents in surveys as relatively unsupportive or even hostile to their own position (supporting the HME).

Co-existence of the FMP and HME would still be unlikely in a fully predetermined world in which the choice of friendly media implies a guarantee in advance that each future news item will be friendly. Media choice is, however, not fully governed by the FMP, especially not for news avoiders, but also not for fanatic partisan news seekers who behave like media omnivores (Prior, 2013; Trilling & Schoenbach, 2015; Trilling, van Klingeren, & Tsfati, 2017). Media content is not fully governed by prior media choice either. Unexpected new issues with surprising or ambiguous issue positions of parties may come to dominate the news, also in self-selected media, like the EU-Ukraine relationship in the run-up to the European elections of 2014 (Kleinnijenhuis & van Atteveldt, 2016), on which this study concentrates. While the self-selection of media by partisans might be guided by predispositions that derive from traditional cleavage dimensions like the dominant socio-economic left-right dimension, so-called wedge issues do not align with these traditional cleavages (Kriesi et al., 2006; van de Wardt, De Vries, & Hobolt, 2014). In Europe, news about immigration, the European Union (EU), in short news about globalization, elicits a top-of-mind awareness of wedge issues. On the wedge issue of the EU—which is the topic here—opponents of the EU constitutional treaty in 2005 were scattered over the center (Christian Union), the left (Socialist Party), and the right (PVV) of the left-right dimension. Consequently, self-selected and overall objectively friendly media with a centrist, leftist, or rightist leaning are unable to deliver uncontroversial news about the EU, thereby resulting in the HME.

The two intrinsic reasons why the FMP and HME might co-occur are the two mechanisms already observed by Vallone et al. (1985). They found two mechanisms at work (also see Perloff, 2015; Schmitt, Günther, & Liebhart, 2004). First, in their study,

partisans on both sides categorized a majority of the arguments included in the coverage as leaning against them. This mechanism, addressed in the literature as selective categorization, adheres to the principles of assimilation and contrast (Calvo, Chang, & Hellwig, 2014; Hovland, Harvey, & Sherif, 1957; Merrill, Grofman, & Adams, 2001), according to which stronger attitudes increase the range of arguments that are rejected as being in contrast to one's position. The FMP and the HME may co-occur, because, in line with the attitude-based assimilation-contrast principle, people might be so deeply involved with an issue that their latitude of rejection becomes so wide that it even includes objectively friendly or even-handed news items. Particularly, people holding stronger attitudes might perceive objectively like-minded media as still insufficiently supportive of their own position. Second, in Vallone et al.'s study, partisans seemed to hold *different standards* about what selection of arguments they deemed accurate or representative of reality. This mechanism, addressed in the literature as the different standard explanation of the HME (Giner-Sorolla & Chaiken, 1994; Schmitt et al., 2004), potentially results from partisans' immersion in homogeneous environments or imagined communities (i.e., social networks, nations, self-selected media audiences, cf. Anderson, 2006; Gruzd, Wellman, & Takhteyev, 2011) that shape what they perceive as common facts or reality. Partisans are also prone to simply project and expect consensus, for example, by inferring that what they personally believe would also be shared by (relevant) others (Gunther & Christen, 2002). The FMP and HME might co-occur, because, in line with the different standards mechanism, the number or strength of arguments presented in objectively liked-minded media might be perceived as an insufficient account of reality.

The FMP and HME might not only co-exist, they might also exert a joint influence on people's political behavior, including voting behavior in a political election. The FMP implies that individuals willingly expose themselves to media with like-minded thoughts and ideas, which in turn reinforce their prior political predispositions and partisanship (Knobloch-Westerwick, 2012). For example, if pro-European people are regularly exposed to pro-European ideas in their self-selected media, their existing political inclinations should be reinforced, which makes them more likely to vote for a pro-European party. We propose, however, that the HME might, in parallel, further *bolster* this reinforcement effect of the FMP. This proposition runs against the interpretation of the HME as a "defensive processing mode" that immunizes media users against media content (Gunther et al., 2012), thereby resulting in minimal media effects. Our argument builds on previous work that showed that the HME motivates corrective actions among users that perceive the media coverage as biased or hostile (Barnidge & Rojas, 2014; Rojas, 2010). Tsfati and Cohen (2005), for example, examined the effect of the HME in the context of the conflict between Gaza settlers and the Israeli government. They found that settlers' self-selected media, which objectively were relatively even-handed toward the settlers' point of view (Sheafer, 2005), were perceived nevertheless as biased and hostile. This HME, in turn, bolstered the personal opinions of settlers and indirectly even their legitimation to resort to violent protest. It might be argued that the HME mediated the relationship between the FMP, that is,

settlers' exposure to like-minded media, and their legitimation to engage in protest. The subjective perception of settlers that even self-selected media that ought to support their own opinions seemed against them might have fuelled their moral obligation to assume their own right.

## The Present Approach

In line with this thinking, in the present approach, we pursue the *research question* whether (a) the FMP and HME co-occur in the context of a political election and (b) jointly mediate the reinforcement of partisanship. We explore the general assumption that the HME might mediate the effect of the FMP, that is, the (friendly) tone of the news in self-selected media, on people's voting behavior. To our knowledge, this idea has not been explicitly considered or examined before, presumably because most previous studies did not jointly measure both the content of self-selected media (to infer the FMP) and subjective perceptions of media content (to infer the HME).

An appropriate context to study the possible co-occurrence of the FMP and the HME is provided by elections for the European Parliament in the Netherlands. The Dutch media system provides a good context to study the FMP, because since the 1870s, partisan selective exposure was institutionalized in the Netherlands through a high degree of party-media parallelism (or "pillarization"). Even radio and television were organized in line with popular support for political parties that were born out of social and religious cleavages. Although party-media relationships gradually dissolved in the Netherlands from the 1960s onward, the FMP is still present. Dutch citizens still put more trust in newspapers and television than in politicians, commercial enterprises, and labor unions (den Ridder, Boonstoppel, & Dekker, 2018). Trust in the news is higher than in most other European countries and much higher than in the United States (Newman, Fletcher, Kalogeropoulos, Levy, & Nielsen, 2018).

However, since the topic of the EU is a wedge issue with supporters and critics of the EU anywhere on the political left-right spectrum, the pro- or con-EU tone of news stories in self-selected media may come as an unpleasant surprise that produces hostile media perceptions. This HME might, in turn, result in attitude-congruent corrective actions (Barnidge & Rojas, 2014; Rojas, 2010), thus in a vote for either a pro- or con-EU party in elections for the European Parliament that is congruent with people's attitudes and the objective content of their self-selected media. Therefore, the present approach pursues the core assumption that the FMP and HME co-exist, and that the HME mediates the effect of the FMP on election behavior.

More specifically, in the present approach, the FMP is predicted from partisan predispositions (H1ab, H2). An HME is predicted in spite of the FMP (H3, H4), and corrective actions are predicted based on the HME (H5). Together, H1 to H5 build a conceptual causal model (Figure 1). The core hypotheses about the reinforcement of political preferences through the FMP and the HME (H6, H7) are hypotheses about causal paths that result from combining H1 to H5. The conceptual model also includes direct effects of antecedent variables to control for potential spurious relations.

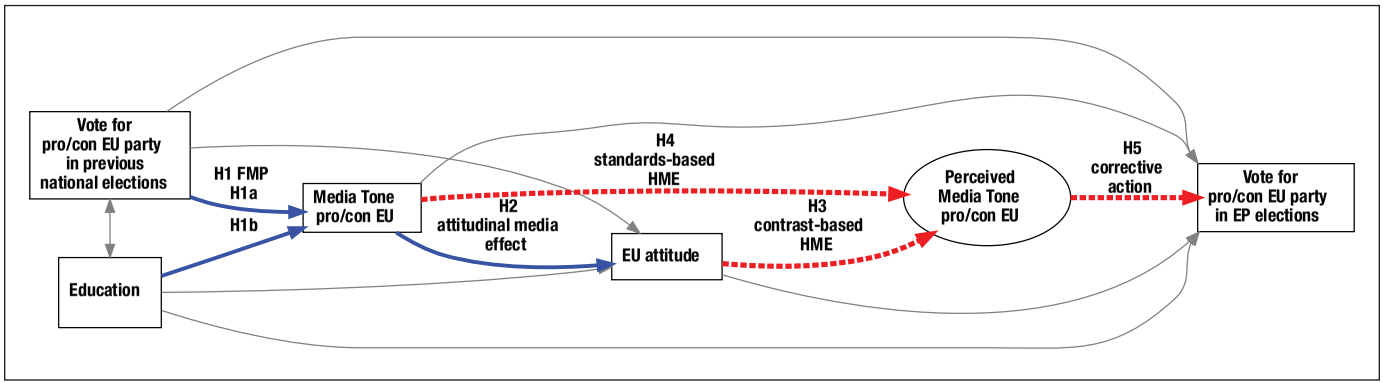


**Figure 1.** Causal diagram.

*Note*. Solid blue arrows represent the expected effects of the FMP (friendly media phenomenon) on the vote for a pro- or con-EU (European Union) party. Dashed red arrows represent negative effects resulting from corrective actions based on the HME (hostile media effect). Gray arrows represent (positive) expected effects from common antecedent variables of the FMP, the EU-attitude, and the vote that cause spuriousness. H6 and H7 are compound hypotheses.
H6: The HME and corrective actions mediate the effect of media tone on the vote (parallel combination of H2 → H3 → H5 with H4 → H5).
H7: The HME and corrective actions further mediate the mediating effect of the FMP on the reinforcement of partisanship (parallel combination of H1 → H2 → H3 → H5 with H1 → H4 → H5).

*The FMP.* The FMP results from partisan selective exposure (Arceneaux et al., 2012; Goldman & Mutz, 2011; van Kempen, 2007). If given a choice, opinionated individuals will tend to gravitate toward objectively like-minded media content and avoid cross-cutting information (Knobloch-Westerwick et al., 2017; Stroud, 2010). In the context of EU elections, partisan selective exposure entails that selective exposure is guided by people's vote at the previous EU election in favor of a pro- or con-EU party. In addition, people's level of education should predict their choice of "highbrow" quality media versus "lowbrow" popular media, that is, of media that are used by news consumers with a similar level of education. Highbrow media tend to confirm the pro-EU dispositions of the higher educated for whom the EU makes traveling and trading easy, while their jobs and salaries are not threatened by cheap labor from elsewhere in Europe (Bovens & Wille, 2010; Hakhverdian, van der Brug, & de Vries, 2012). In line with the idea of an FMP, we expect the following:

> **Hypothesis 1 (H1, FMP):** A prior vote for a pro- rather than con-EU party (H1a), and a higher educational level (H1b) contribute to the choice of media with a pro-EU rather than con-EU tone (H1ab, *FMP*).

Regular exposure to media supportive or critical of the EU shapes, in turn, people's attitude toward the EU (Azrout, van Spanje, & de Vreese, 2012; Vliegenthart, Schuck, Boomgaarden, & de Vreese, 2008).

> **Hypothesis 2 (H2, attitudinal media effect):** Exposure to media with a pro-EU rather than con-EU tone contributes to a pro-EU rather than a con-EU attitude.

H1 and H2 are not deterministic hypotheses. They do not exclude that the tone of the news toward the EU in self-selected media still differs from what was expected on the basis of predispositions. Attitudes toward the EU may still come to deviate from earlier predispositions.

*The mediating role of the HME.* We expect that the FMP might breed attitudes that then "backfire," with people forming stronger attitudes in favor or against the EU subjectively perceiving the tone of "the media" (their self-selected media, but also other nonselected media) about the EU as relatively unsupportive of their own position. Hence, we expect,

> **Hypothesis 3 (H3, contrast-based HME):** The more positive people's attitude toward the EU, the more negative they perceive the media tone regarding the EU to be.

The HME might not only result from people's personal attitudes, but also from what they perceive as standard or consensus, For example, within the readership of highbrow media or lowbrow news media, common perceptions may develop about the EU, and therefore, also common standards about what "the truth" is. For example,

people who are regularly exposed to a highbrow news medium that covers the EU in a favorable light may compare the tone of the news to standards of an "imagined community" of people who choose the same media that they selected themselves as their everyday comrade (Anderson, 2006; Gruzd et al., 2011). The more pro-European the news media people are exposed to, the more pro-European is probably also the social environment they are immersed in; accordingly, what they perceive as standard will be more pro-European. As HME research shows, higher standards, however, are more easily violated by coverage (particularly, if journalists aims to be fair and neutral), thus triggering perceptions of unfair coverage (Vallone et al., 1985). Accordingly, we expect,

> **Hypothesis 4 (H4, standard-based HME):** The objective pro-EU or con-EU tone of self-selected news outlets contributes directly to a reversed "hostile" subjective perception of the tone of the media toward the EU.

*Corrective action and reinforcement of partisanship.* In line with prior research, the HME presumably triggers corrective action (Barnidge & Rojas, 2014; Rojas, 2010). In the present context, we, therefore, expect that the stronger the HME, the more people are inclined to correct for the seemingly insufficient or even unfair EU coverage by aligning their vote in the EU election even more firmly with their attitude toward the EU. More specifically, we expect the following:

> **Hypothesis 5 (H5, corrective action):** The more people perceive the media to (unfairly) favor the EU, the more they will be inclined to vote for a contra-EU party and vice versa.

*Conceptual model, indirect effects, and potential spurious relations.* Figure 1 visualizes the numbers, labels, and interconnections of the separate hypotheses. The hypotheses about the expected effects of friendly media are depicted as solid blue arrows (H1, H2). The two hypotheses about hostile media perceptions (H3, H4) and the corrective action hypothesis (H5) give rise to three negative relationships. They are depicted as dashed red arrows.

The two core hypotheses of this article are, however, compound hypotheses about parallel combinations of serial paths. Figure 1 shows that positive serial paths are expected between predispositions and the tone of the media and the ultimate vote for a pro-EU or con-EU party, because the hostile media perceptions are expected to be reversed by corrective action ($- - = +$). H6 is about corrective action as a response to the perceived hostility of the tone of EU news in self-selected media. H6 is confirmed if the parallel combination of the serial paths H2→H3→H5 and H4→H5 is significantly positive. H7 is about corrective action as a response to the perceived hostility of the tone of EU news in media that were partly selected on the basis of partisanship predispositions. H7 is confirmed if the parallel combination of the two serial paths H1→ H2→H3→H5 and H1→ H4→H5 is significantly positive.

The model controls for more straightforward determinants of EU-attitudes and the vote for a pro-/con-EU party exist than the subtle serial paths underlying the core hypotheses (H6 and H7). For example, people's choice for a pro- or con-EU party is influenced directly by the positive, Europhile or negative, Eurosceptic tone of EU news coverage (van Spanje & de Vreese, 2014) and, even more obviously, by EU-attitudes (Azrout et al., 2012; de Vries et al., 2011; Hobolt & Spoon, 2012). Furthermore, one might critically argue that the present core hypotheses deal with causal relationships, but that these relationships could be partly or completely spurious, since choices of media and parties, for example, may have common antecedents. In the case of the EU, such a spurious relationship will occur if the vote for a pro- or con-EU party at the previous EU elections and one's educational level would not only result in the choice of like-minded media (as we expect in H1, *FMP*), but also directly in a corresponding EU-attitude shortly before the next EU elections and a corresponding vote for a pro- or con-EU party at these elections. Such a direct effect would reflect the autonomous reinforcement of partisanship due to the relative stability of party identification (Dilliplane, 2014; Knobloch-Westerwick, 2012). To cope with these challenges, we controlled for several direct effects of antecedents, as can be seen from the gray arrows in the conceptual model. Taking into account these effects is a prerequisite to demonstrate that the attitudinal media effect (H2) and the proposed mediated effects on the vote (H6 and H7) are not spurious effects after all.

## Method

In general, a longitudinal research design with a "methodologically mature approach to temporal change" (Stanyer & Mihelj, 2016) is required to account for the long-term impact of selective exposure to friendly media at a previous point in time (Knobloch-Westerwick, 2012). Accordingly, the current study was based on a content analysis of the tone of EU coverage in the media and on a long-term 2012-2014 panel survey of which three waves were used, the first wave from 2012, one wave immediately before, and one wave immediately after the 2014 European elections. Measures of factors that affect self-exposure to friendly media, that is, one's position pro or con the EU and one's level of education, were taken from a 2012 wave of the panel survey. The tone toward the EU of the media with the highest circulation was measured in the months preceding the 2014 elections. The self-selection of media in the previous months and their perceived media slant—here labeled as the perceived media tone—as well as the current attitude toward the EU were measured in the panel wave in the weekend before the 2014 EU elections. The vote at the 2014 EU elections was measured in the panel survey wave in the days immediately after the elections. A fast-forward look at Table 1 gives an overview of the selected media.

### *Data*

*Panel survey data.* The fieldwork to collect the panel survey data was commissioned to GfK. A total of 1,223 Dutch voters participated in the pre-elections panel survey wave

**Table 1.** Media Tone and Audience Metrics per Medium.

| | | | | | | | Perceived media tone pro-/con-EU | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Audience share | Education | Pro-/con-EU vote 2009 | Media tone pro-/con-EU | EU attitude | Self-selected media | Nonselected media | Pro-/con-EU vote 2014 |
| | | % | [0...1] | [−1...+1] | [−1...+1] | [−1...+1] | [−1...+1] | [−1...+1] | [−1...+1] |
| Quality Press | *NRC Handelsblad* | 6 | 0.80 | 0.25 | 0.41 | 0.20 | −0.20 | −0.14 | 0.34 |
| | *de Volkskrant* | 10 | 0.75 | 0.23 | 0.03 | 0.11 | −0.18 | −0.22 | 0.26 |
| | *Trouw* | 4 | 0.64 | 0.17 | 0.26 | 0.13 | 0.09 | −0.22 | 0.29 |
| Popular Press | *De Telegraaf* | 19 | 0.55 | −0.05 | −0.18 | −0.21 | 0.09 | 0.13 | −0.05 |
| | *Algemeen Dagblad* | 16 | 0.57 | 0.04 | 0.16 | −0.13 | −0.04 | 0.04 | 0.06 |
| TV news | NOS | 60 | 0.59 | 0.04 | −0.12 | −0.07 | 0.00 | −0.01 | 0.08 |
| | RTL | 37 | 0.57 | −0.06 | −0.12 | −0.22 | 0.04 | 0.06 | −0.08 |
| Free dailies | *Metro* | 10 | 0.65 | 0.04 | 0.11 | −0.06 | −0.07 | 0.01 | −0.01 |
| | *Sp!ts* | 9 | 0.63 | 0.03 | 0.11 | −0.14 | 0.08 | 0.11 | −0.02 |
| None of the above | | 18 | 0.47 | −0.11 | −0.07[a] | −0.23 | 0.01 | 0.02 | −0.17 |

*Note*. Audience shares add up to 171% instead of 100 – 18 = 82% because of partially overlapping audiences. Therefore, no attempt should be made to compute population characteristics from averages across media audiences. The data refer to $n = 1{,}223$ respondents who participated in the 2014 pre-election survey. The vote for a pro- or con-EU party in 2014 is based, however, on the $n = 1{,}160$ respondents who participated in the 2013 postelection survey. EU = European Union.

[a]To respondents who did not attend to any of the investigated media, the average media tone across 82% of media users, −0.07, was attributed.

one week before the EU elections on May 22, 2014. 1,160 voters also participated in the postelection survey immediately after the elections. Respondents in the pre-election wave were all part of the first wave in the panel survey in July 2012, a few months prior to the 2012 parliamentary elections. Thus, first-time voters aged 18 years to 19.5 years were excluded from the 2014 sample waves by design. The first wave of the sample in 2012 was a stratified sample of 1,804 citizens who were eligible to vote. The sample for the first wave was stratified according to the distribution of the votes between parties in the previous national elections of 2010, including the "party" of nonvoters. Furthermore, the sample was representative with respect to sociodemographic characteristics such as education and age. The sample was drawn from a preregistered census of about 100,000 people who were contacted by GfK to participate in survey research. Although panel attrition, 2 years later, was substantial (32% for the pre-election wave, 36% for the post-election wave), the 2014 sample is not significantly different from the representative 2012 sample with regard to variables in the research model, like education and party choice.

*Content analysis data.* The content analysis included the news from December 1, 2013, until the elections on May 22, 2014 from five quality newspapers with a relatively large audience share among the higher educated, as well as two popular newspapers with lower educated readers and two free dailies with a relatively wide audience share of youngsters. Furthermore public television news was included. These media account for an audience share of 82% of the Dutch adult population. Table 1 gives an overview of metrics for these media.

The number of articles for the EU was determined with a search query for the EU and European actors, which delivered 5,770 news items. The term "Europe" and "European" were excluded from this query because they delivered too many false hits. Each of the investigated media, with the exception of the free daily *Sp!ts*, presented on average more than one news item per day about the EU. Quality newspapers and the popular newspaper *De Telegraaf* published on average more than five news items per day with references to the EU.

The data, search queries and scripts are accessible as DataVerse; https://hdl.handle.net/10411/YDUA7T

## Operationalization

*Media tone (MT) of self-selected media.* The tone of the news toward the EU was assessed with a measure for the contextual polarity of positive and negative associations with the EU at the sentence level that reckons not only with explicit evaluations, for example, in editorial comments, but also with the slant of hard news. The measure covers whether the EU is situated in a negative or positive context, regardless whether something is good or bad for the EU, whether the EU is acting well or badly from an ethical perspective, whether the EU is good or bad according to stakeholders, or whether EU performance is good or bad. An automated method of content analysis was chosen to allay the doubts in the core FMP-study of Goldman and Mutz (2011)

regarding whether human coders—many of whom presumably are highly educated and have a similar political ideology—might introduce their own biases into coding, although we are not aware of studies to substantiate such doubts. We could not use any of the standard tools for sentiment analysis at the level of news items, because articles about the EU usually deal with many other issues and actors as well. We applied an updated lexicon of positive and negative Dutch words that was originally derived from Brouwers's thesaurus for Dutch words and phrases to each word that occurred within a distance of 20 words from the EU in a sentence about the EU—or about one of its institutions. Satisfactory reliability estimates were revealed by a comparison to human codings of sentences that were rated by the automated procedure as negative, positive, or nonevaluative $F$(EU-negative) = 0.78, $F$(EU-positive) = 0.83. The $F$-measure to assess the reliability of automated codings as compared to human codings by the authors is calculated as the harmonic mean of the number of correct hits from a sample of sentences about the EU that were machine-coded as positive ($n$ = 200) or negative ($n$ = 200), and the number of missed positive or negative hits about the EU in a sample of sentences that were machine-coded as neutral or irrelevant ($n$ = 200). Reliability was not impaired unduly by the small minority of sentences with unusual designations of the EU, complex propositional reasoning, or with irony and sarcasm, which an automated procedure is unable to code.

The tone of the news in self-selected media was calculated as the subtraction of the square root of the number of negative words from the square root of the number of positive words within sentences about the EU, divided by the number of EU sentences in the media that was attended to by a specific respondent. The square root operation was applied to numbers of positive and negative EU sentences, because the square root turns out to be the optimal Box-Cox transformation to represent the idea of marginal increases of positivity or negativity when the number of positive or negative words increases (van Noije, Kleinnijenhuis, & Oegema, 2008). The measure was linearly transformed to the −1...+1 value range (−1 represented con-EU). Despite prior evidence that respondents tend to overestimate their media use in self-report items (Scharkow & Bachl, 2017), a full 18% of the sample reported following none of the newspapers or TV stations in response to the battery of media exposure items in the current study (cf. Table 1, first column). The average tone of the news was assigned to respondents who were not exposed to one of the media that were investigated. Similar procedures to assign media content to respondents based on media choice were applied, for example, by van Spanje and de Vreese (2014); see Scharkow and Bachl (2017) for a methodological review.

*EU attitude.* Voters' attitudes toward the EU were assessed by a single seven-point question

> Are you all in all in favor of: abolition of the European Union, a much less strong European Union than now, a little less strong European Union than now, today's European Union, a slightly stronger European Union than now, a much stronger European Union than now, or a European government for all member states.

Respondents who did not know were recoded to a neutral position. The measure was linearly transformed to the −1...+1 range.

*Perceived message tone.* To measure the perceived tone of self-selected media, a 5-point scale was construed based on two questions. The first three-point question was "Was the news on the EU that you yourself paid attention to balanced, somewhat biased, or completely biased?" If the news was considered somewhat biased or completely biased, a follow-up question was asked to turn this three-point question into a 5-point polar scale: "Was the news on the EU that you yourself paid attention to biased in favor of, or biased against a stronger European Union?" The scale was transformed to the −1...+1 range (−1 representing strong anti-EU bias of own media). "Don't know" answers were coded as neutral scores. To measure the perceived message tone of non-selected media, a 5-point scale was construed from two similar questions, with the difference that the two questions were about the respondent's impression of the news on the EU to which the respondent did not pay attention. The fairly strong correlation between the perceived tone of selected and not-selected media (0.47) indicates that in the case of the EU wedge issue, many voters perceive a common message tone of "the media" rather than a separate tone of self-selected media and nonselected media. Therefore, we opted to include the perceived message tone as a latent variable in the research model, with the tone of self-selected media and non-selected media as its indicators. If the two indicators would relate in unique ways to the other variables in the model, then a poor model fit would result, which would give rise to rejection of the model, and specifically of the unidimensionality of the perceived tone of "the media."

*Vote for a pro-EU party or con-EU party.* The panel survey data, which measured party choice both in 2012 and 2014, in combination with expert survey data on the positions of these parties with regard to the EU in the 2009 and 2014 EU elections (Bakker et al., 2015), allowed us to construe a behavioral pro- or con-EU variable with an interval level of measurement for respondents in the panel survey in 2012 and in 2014. To classify the Dutch parties on a 7-point pro-EU- versus con-EU scale, the judgments of experts in the Chapel Hill Expert Study with regard to overall positions of European parties on the EU in 2014 were used (Bakker et al., 2015). The same measure for 2009 was used to scale the issue positions of political parties in the national elections that were held in 2012. The scores were linearly transformed to the −1...+1 value range (−1 representing entirely anti-European). This led to a continuum of parties with the antiimmigrant party PVV headed by Geert Wilders at the con-EU pole and D66 and GroenLinks at the pro-EU pole. Wilders opposed vehemently lending money to the almost bankrupt EU member state Greece, whereas D66 and GroenLinks vehemently opposed Wilders. EU positions were somewhat more polarized in 2014 than in 2009: the three parties that opposed the EU constitutional law in 2005 (CU/SGP, PVV, SP) took a more negative stance, whereas the pro-parties took a more positive stance. Not casting a vote—abstention from the ballot—was considered a mild form of withholding legitimacy to the EU, which was represented by a score of −0.33 on the 7-point −1...+1 scale.

### Data Analysis

The content analysis to arrive at a measure of bipolar sentiment scores was carried out with AMCAT, the Amsterdam Content Analysis Toolkit (https://github.com/amcat/; https://amcat.nl; van Atteveldt, 2008). Because the hypotheses involved several interdependent endogenous variables, a structural equation model was estimated to test the hypotheses simultaneously. Maximum likelihood estimates of the regression parameters and goodness-of-fit measures for the structural equation model were obtained using the R-package Lavaan, in which the Sobel-test is implemented to test hypotheses about indirect effects (H6 and H7). We used robust Satorra-Bentler estimates of the standard errors of regression coefficients that apply also when the variables in the model do not show a multinormal distribution (Rosseel, 2012).

## Results

### Data Description

Table 1 provides, at the aggregate level of separate media, a description of the tone toward the EU for each medium and of audience metrics. Note that audience shares add up to more than 100% since audience share partly overlap each other.

A pro-EU tone prevails in quality newspapers. The popular newspaper *De Telegraaf* (−0.18), and TV news magazines (−0.12) relatively often portray the EU in a negative context, especially as compared to quality newspapers *NRC Handelsblad* (+0.41) and *Trouw* (+0.26).

Correspondingly, the attitude toward the EU is especially negative among the users of *De Telegraaf* (−0.21), RTL (−0.22), also among media avoiders (−0.23), and especially positive among readers of *NRC Handelsblad* (0.20). The pattern of average scores per audience reveals at a glance that education, and voting for a pro- or con-EU party appear to be positively correlated at the aggregate level with the average EU attitude and the media tone of self-selected media.

The contrasting signs of the perceived tone toward the EU of a medium in the audience of that medium as compared with other measures indicate that the perceived media tone runs both contrary to voting behavior, which is in line with the corrective action hypothesis, and contrary to the objective media tone of a medium and the EU attitude, which is in line with the HME. The perceived message tone in self-selected media and in nonselected media tend to have the same sign, which suggests that perceived message tone is a one-dimensional concept.

In short, the descriptives at the aggregate level of media and from Table 1 are consistent with expectations on the basis of the hypotheses on the level of individual media users. Table 2 provides the correlation coefficients, means, and standard deviations at the level of individual panel survey respondents who also participated in the postelection wave ($n = 1{,}160$). The data from Table 2 suffice to reproduce the structural equation model below.

**Table 2.** Zero-Order Correlations, Means, and Standard Deviations.

| Pearson's *r* | 1 | 2 | 3 | 4 | 5 | 6 | *M* | *SD* |
|---|---|---|---|---|---|---|---|---|
| 1 Education | | | | | | | .5618 | .2689 |
| 2 Vote pro- or con-EU party 2012 | .225 | | | | | | −.0203 | .4636 |
| 3 Media Tone pro- or con-EU (MT) | .171 | .120 | | | | | −.0846 | .2739 |
| 4 EU attitude | .255 | .300 | .135 | | | | −.1316 | .5385 |
| 5 Perceived MT self-selected media | −.154 | −.096 | −.082 | −.176 | | | −.0086 | .6863 |
| 6 Perceived MT nonselected media | −.139 | −.097 | −.069 | −.197 | .470 | | −.0052 | .6286 |
| 7 Vote pro- or con-EU party 2014 | .273 | .474 | .137 | .420 | −.172 | −.155 | −.0052 | .5672 |

*Note.* Based on $n = 1{,}160$ respondents who participated in the postelection survey. All variables are distributed in the polar value range, −1...+1, except for education, which has a positive value range 0.1. All correlation coefficients in the table are significant ($p < .05$, two sided). EU = European Union; MT = media tone.

Table 2 shows positive correlations throughout, but negative correlations with the perceived media tone of self-selected media and of other media. Thus, Table 2 is also consistent with expectations on the basis of the positive (solid) hypotheses versus the negative (dashed) hypotheses in the conceptual model of Figure 1.

## *The Structural Equation Model*

To reveal the causal order that produced the correlations in Table 2, Figure 2 presents the results of the structural equation models that comprise the separate causal steps H1 to H5 from the conceptual model in Figure 1, and also in gray, the effects that had to be controlled for. The figure's legend includes goodness of fit statistics for the model and test statistics for the compound hypotheses (H6 and H7). A latent variable could be included in the model that taps both the perceived tone of self-selected media and not selected media. This indicates that the assumption that one latent dimension underlies both perceptions is a statistically valid assumption. From a communications point of view, this may mean that on the subject of the EU, *the media* are perceived as a monolithic attitude object, although different sides disagree about the tone of 'the news in monolithic media.

The standardized parameter estimates in Figure 2 correspond to the hypotheses in Figure 1. They show that the expected causal relationships regarding the FMP (hypotheses H1a, H1b, H2), the HME (H3, H4), and corrective action (H5) turn out to be significant in the expected direction. None of them is rejected. Note that if the dependent variables would have been driven by media choice and not at all by media content, H2 and H4 would have been rejected. Figure 2 allows for a direct answer to the first part of the research question about whether the contrast-based and standards-based mechanisms of the HME and the FMP co-occur in the context of a political election. They indeed co-occur, since not only the contrast-based HME (H3, −0.18)

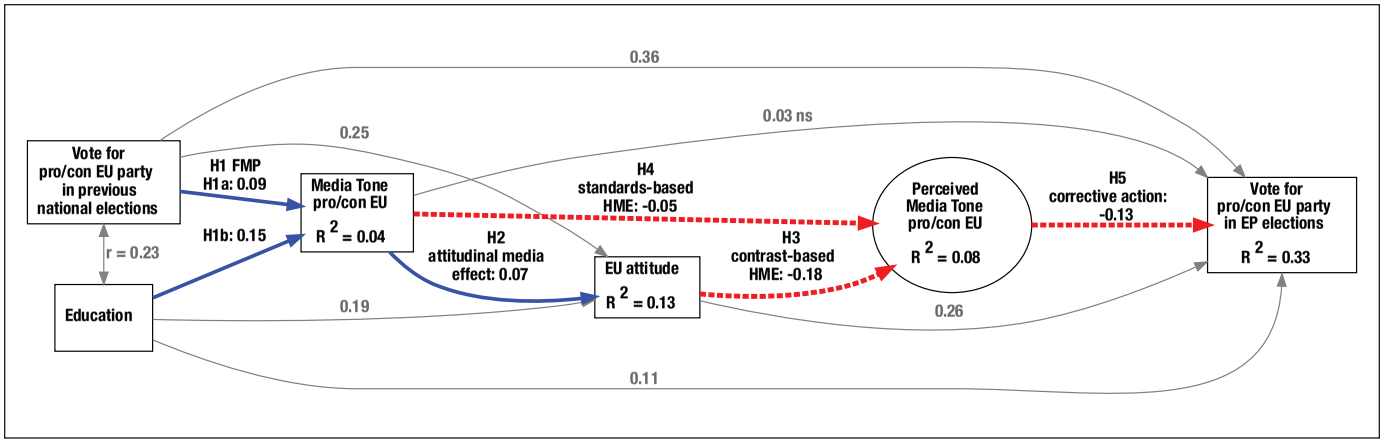


**Figure 2.** Structural equation models for the FMP-HME corrective action model.

*Note*. The coefficients along the arrows represent standardized coefficient estimates for the conceptual model (Figure 1). For the endogenous variables, $R^2$ values as a measure of explained variance are included. Simultaneously $R^2$ values were estimated for the explanation of the perceived tone of respectively self-selected ($R^2$=0.45) and other media ($R^2$=0.49) from the latent concept Perceived Media Tone (ellipse). Fit: $\chi^2 = 18.2$ ($df = 6$, $n = 1{,}160$), $p = .006$, $\chi^2/df = 3.03$, CFI (comparative fit index) = 0.99, RMSEA (root mean square error approximation) = 0.042, SRMR (standardized root mean square residual) = 0.025. Fit with one non-significant (ns) insignificant control effect fixed to 0: $\chi^2 = 19.8$ ($df = 7$, $n = 1{,}160$), $p = .006$, $\chi^2/df = 2.83$, CFI = 0.99, RMSEA = 0.040, SRMR = 0.025.

Model based tests of compound hypotheses:

H6: The HME and corrective actions mediate the effect of media tone on the vote (combination of H2 → H3 → H5 with H4 → H5): $z = 2.339$ ($p = .019$).

H7: The HME and corrective actions mediate the effect of the FMP on the reinforcement of partisanship (combination of H1ab → H2 → H3 → H5 with H1ab → H4 → H5): $z = 2.140$ ($p = .032$).

and the standard-based HME (H4, −0.05) find support in the data, but also the FMP based on the prior vote (H1a, 0.09) and education (H1b, 0.15).

Significant estimates show up, although the direct effects of predispositions and of EU-attitudes on the vote for a pro-con EU party are generally stronger: 0.36 for the vote in previous elections, 0.11 for education, and 0.26 for the EU-attitude, respectively. The direct effect of the media tone in self-selected media on the vote is insignificant (+0.03, *ns*). Reestimating the model without this insignificant effect further improves the already solid fit of the model, $\chi^2/df = 2.83 < 3$, comparative fit index (CFI) = 0.99 > 0.9, root mean square error approximation (RMSEA) = 0.04 < 0.06, standardized root mean square residual (SRMR) = 0.025 < 0.05.

The second part of the research question on whether the FMP and the HME exert a joint influence on people's political behavior can be answered with the test results for the compound hypotheses (H6 and H7; Figure 1, legend). Hostile perceptions of the tone of media toward the EU, which are reversed quite often in corrective actions to vote for a pro- or con-EU party, are themselves quite often the reverse of the pro- or con-EU tone of the news in self-selected media. This implies that corrective actions often reinforce the tone of the news toward the EU in self-selected media, as is indicated by the *z*-test statistic for the Sobel tests in the legend of Figure 2 (H6 = H2→H3→H5 + H4→H5, $p = .019$).

Media with a specific tone toward the EU are selected in part on the basis of partisan predispositions, as indicated here by the vote for a pro-/con-EU party in the previous elections, and educational level. The Sobel test indicates that partisan predispositions are reinforced in part through the FMP, because they lead to the choice of media with a congruent pro- or con-EU tone, which in turn gives rise to an HME, which is compensated by corrective action (H7 = H1→H2→H3→H5 + H1→H4→H5, $p = .032$). Thus, the answer to second part of the research question is that the FMP and HME exert a joint influence in reinforcing partisanship indeed.

These research results confirm earlier research findings that self-selected media reinforce partisanship, that is, the relation between the previous vote and the current vote for either a pro- or con-EU party, through the FMP (Dilliplane, 2014; Knobloch-Westerwick, 2012). However, the current study shows that, in addition, this mediating partisan selective exposure effect or friendly media effect (H1ab) is, itself, mediated by corrective actions to standards-based (H4→H5) or contrast-based (H2→H3→H5) hostile media perceptions. Thus, the full answer to the research question is that the HME and the FMP do not only co-occur but also that the HME mediates the mediating effect of the FMP on the reinforcement of partisanship.

## Discussion

Studies on the HME show that media users perceive media coverage as biased (Hansen & Kim, 2011; Perloff, 2015; Vallone et al., 1985). However, other research shows that partisans selectively turn to like-minded media, resulting in a FMP (Arceneaux et al., 2012; Goldman & Mutz, 2011; Levendusky, 2013; van Kempen, 2007). Political polarization may result once highly involved citizens opt for partisan media, or even

for exposure to partisan echo chambers and filter bubbles (Bennett & Iyengar, 2008; Stroud, 2010). The HME and the FMP seem to be at odds at first sight. In the case of objectively friendly media, perceived media hostility appears to be either irrelevant or merely a motivation to choose even more friendly media. Based on methodological and theoretical arguments to the contrary, the research question is addressed whether nevertheless the FMP and HME might co-occur and even strengthen each other in reinforcing partisan predispositions.

To control for the self-selection of media, a longitudinal research design over a 2-year period with four measurements was used to measure successively partisan predispositions in a first wave of a panel survey in 2012, media content in self-selected media in the months before the next EU elections, hostile media perceptions in a panel survey wave shortly before the elections, and the vote for a pro- or con-EU party in the final panel survey wave immediately after the next elections for the European Parliament in the Netherlands in May, 2014. The EU can be considered as a wedge issue on which issue positions are not structured along the dominant left-right axis (van de Wardt et al., 2014). Therefore, it is unlikely that voters will have selected like-minded media solely on the basis of EU-specific predispositions. This in turn makes it likely that they will have encountered relatively often unexpected media content about the EU that was perceived as hostile.

In the case of the EU, voters considered indeed "the media" as hostile, thus not only the media that they did not attend to, but also their self-selected media. Although trust in the media and the news are high in the Netherlands (den Ridder et al., 2018, pp. 15-16; Newman et al., 2018, pp.16-17), on the issue of the EU they were perceived as hostile, both as compared to personal EU attitudes (Calvo et al., 2014; Hovland et al., 1957; contrast-based HME) and as compared to the presumed standards of an "imagined community" of like-minded people that choose the same media (Anderson, 2006; Gruzd et al., 2011; standards-based HME). An answer to the research question requires an assessment of the direction and the strength of indirect causal effects of HMEs in response to media that were partly chosen on the basis of partisan predispositions on corrective action in the vote for a pro- or con-EU party. Sobel-tests were used to assess the significance of these indirect causal effects in a structural equation model that reckons also with direct effects and spurious effects of EU-related predispositions, news, and attitudes. The examination of these hypothesized indirect causal relationships revealed that voters opted for like-minded media, but nevertheless perceived these media as hostile, which in turn increased the likelihood to vote precisely in line with previous attitudes and, paradoxically, also in line with the actual tone of self-selected friendly media that was subjectively perceived as hostile. These novel insights provide an answer to the research question. The HME and the FMP do co-occur, and moreover strengthen each other. Hostile media perceptions of friendly media do reinforce partisanship—an effect already hinted at by the findings of a study by Tsfati and Cohen (2005). The parameter estimates in Figure 2 show the significance of this reinforcement effect, in addition to many other effects on partisanship, other media effects, and other paths to reinforce partisanship.

What are the wider implications of this finding? The present study rejects the idea that the HME or the FMP would result in minimal media effects in the digital era. The HME may result in a defensive mood against media content (Günther et al., 2012), but this perceived hostility is the basis for corrective action. The FMP, that is, the choice of relatively friendly media, predetermines the tone of actual media content to a certain degree (Bennett & Iyengar, 2008), but news content in self-selected media is sufficiently independent from prior media choice to make it worthwhile for campaigners to launch newsworthy news events that reach undecided and hostile voters. The effects of EU news on the vote in the next EU elections in combination with the modest explanation of the choice of media by EU-relevant predispositions, points out that media choice is only half of the story to explain the tone of the news in self-selected media. The structural equation model shows that the effects of the subtle causal chains running from the FMP to corrective actions based on the HME are relatively modest, both as compared to other ways in which partisan selective exposure may reinforce partisanship, and as compared to other ways in which changes in the tone of the media may influence the vote (Dilliplane, 2014; Knobloch-Westerwick, 2012). In short, the research results do not at all exclude that future campaigners and future media will find a variety of ways to exert not-so-minimal effects on citizens.

An obvious limitation of the current longitudinal study is its application to one wedge issue, the EU, in one multimedia-multiparty system, the Netherlands. We expect that the results will also hold for other wedge issues on the globalization dimension of politics (Kriesi et al., 2006). For issues on the socioeconomic left-right dimension that determine the choice of like-minded media more strongly, we do not expect a strong HME or corrective action in reaction. We are not aware of a priori arguments why the result that the HME may strengthen the effect of the FMP would be highly system dependent, but additional research is required. Does the result also apply in two-party systems with higher levels of bipartisan polarization, in systems with a much higher percentage of news avoiders who don't cast a vote, in systems with a more narrow or an even more wide range of media choice than the Netherlands, or in systems without a high level of trust in the media and in the news in general that may compensate for the feelings of hostility toward the tone of the news about wedge issues? Future studies could measure the tone of the news in self-selected media in other ways, or differentiate between the tones within various news frames.

The research findings appear to provide a rationale for media bashing by political candidates, because convincing latent voters that their self-selected media are hostile against them could direct these voters to friendly media in their favor. New research is required to understand whether political propaganda may foster the FMP and the HME indeed, and next, whether a strong HME in turn contributes indeed to the FMP, thus to the choice of friendly partisan media, rather than to media omnivorism or to media avoidance.

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